U. S. Department of Labor

Mine Safety and Health Administration
110 Gott Road
Princeton, West Virginia 24740

12-11-80
#9

December 18, 1980

MEMORANDUM FOR: HERSCHEL H. POTTER
Chief, Division of Safety

FROM: CLOYD BLANKENSHIP
Mining Engineer

SUBJECT: Report of Investigation of Coal Mine Bumps, Skip South Section, Beatrice Mine, Beatrice Pocahontas Company, Keen Mountain, Buchanan County, Virginia

Two coal mine bump outbursts occurred in the Skip South Section. The first incident occurred on December 6, 1980, and the second incident occurred at approximately 10:30 p.m., December 11, 1980. The writer was informed of the outbursts upon arriving at the mine to make a routine bump control survey on December 8 and 12, 1980, by Cecil Keene, Section Foreman.

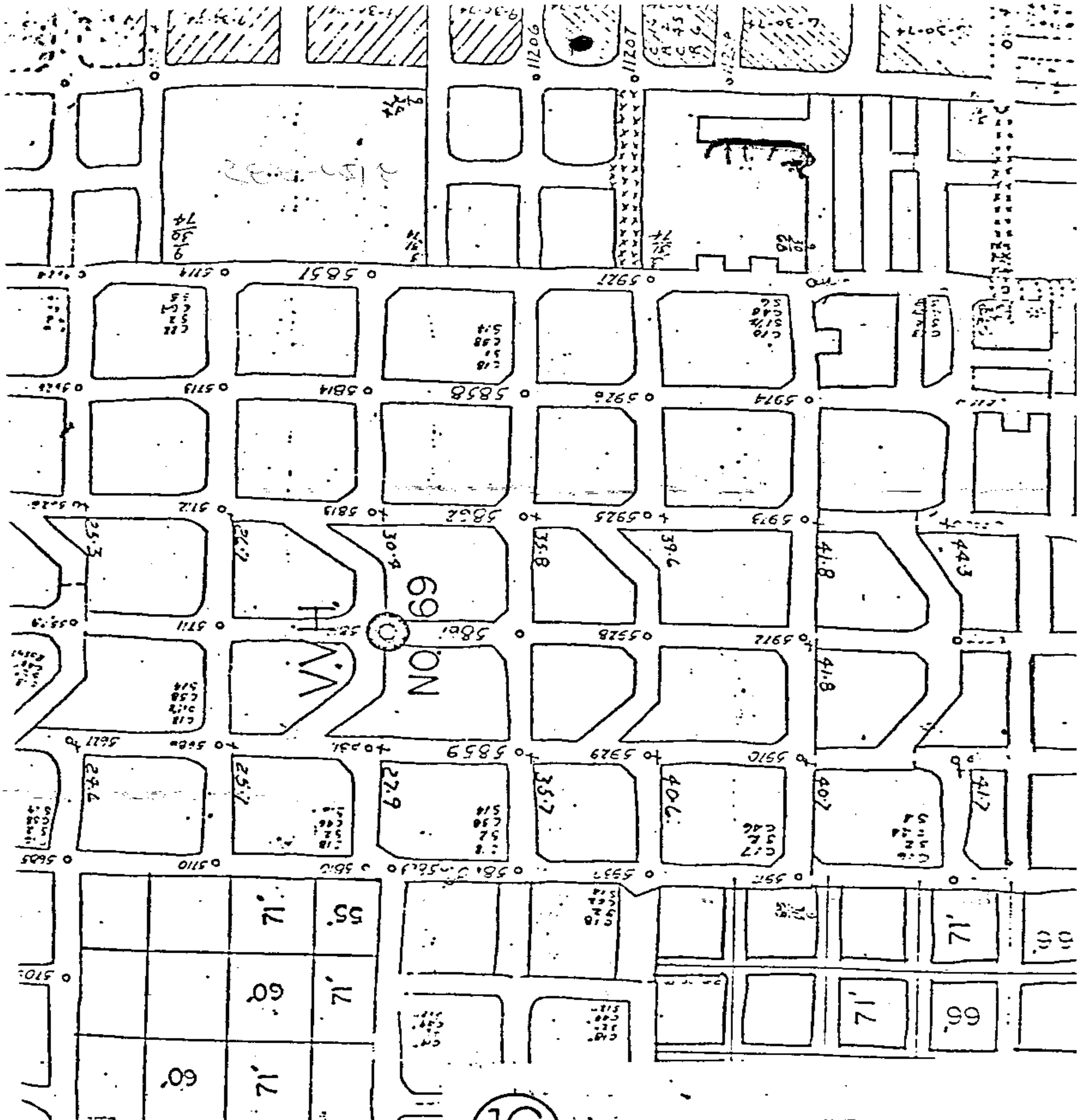
An investigation of the first outburst was made by the writer on December 8, 1980. In discussing the incident with Cecil Keene, Section Foreman, I was informed the outburst was observed while an examination was being conducted during a nonproducing shift. The investigation revealed the outburst occurred in a pillar remnant (Sketch A) with dimensions of 55 by 85 feet that was located adjacent to a pillared-out area. The chain pillar (90 by 80 feet) had been split during the mining of the adjacent area to reduce the size of the pillar to avoid excessive pressure build-up in the pillar remnant for second mining. The chain pillar had been split for approximately 9 months. The force generated by the coal mine bump was of such magnitude, the immediate mine roof was dislodged and the end of a cinderblock stopping was torn out due to the expansion of the coal rib. It was concluded that the contributing factors that motivated the bump were the depth of overburden (approximately 1,350 feet), the strength of the mine floor and roof, the size of the pillar remnant and its location adjacent to the pillared-out area. There were no injuries or property damage.

An investigation of the second outburst was made by the writer on December 12, 1980. The incident occurred while developing a 255 by 140-foot barrier pillar (Sketch B) that is located in the vertex of the pillared-out areas. The pillar was being developed on 40-foot centers to demean the mine pressure acting on the pillar and to reduce the size for yielding in advance of complete extraction. The barrier pillar had been reduced to a 120 by 100-foot chain pillar. Three shuttle cars of coal had been mined out of the split when the outburst occurred. The bump was of such magnitude that coal was expelled

from the rib in the adjacent split and from the rib where coal was being mined. Mining reactions during visits preceding the incident were found to be normal in a bump potential area. There were no injuries or property damage. It was concluded the contributing factors that motivated the bump were the depth of overburden (approximately 1,350 feet), the strength of the mine floor and roof, and the location of the pillar being in the vertex of the pillared-out areas.

Attachment: a/s

cc: Jack F. McManus



COAL MINE BUMP
BEATRICE MINE
BEATRICE POCAHONTAS COMPANY
KEEN MOUNTAIN, BUCHANAN COUNTY, VIRGINIA
December 11, 1980 Scale 1" = 100'

Sketch B

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